ATTACHMENT 3

To: Staff Work Group on Urban Water Use Measurement
From: Tom Gohring, WUE Program Manager
Date: April 3, 2003
Re: Materials for Work Group Consideration—Elements of an Urban Water Use Measurement Framework

The attached table is presented to lay out a graphical representation of the topics the Program Manager proposes to engage with the Urban Water Use Measurement Staff Work Group. The matrix has six columns:

1. ***Concerns Expressed Associated with Current Measurement Approach:*** The ideas incorporated in this column are drawn largely from the Stakeholder Analysis and Staff Work Group discussions. Though the concepts were reviewed and confirmed during the 3/28/03 Drafting Team deliberations, they are presented here – and in the proposed Purpose/Scoping Statement – as a list of concerns *expressed*. It is our intent to confirm and prioritize this list during the Work Group's April 7 meeting.

2. ***Possible Options/Solutions:*** This column captures possible options for addressing the list of concerns described above. The current proposed options/solutions are presented for brainstorming purposes and have not yet been discussed with the full Work Group. We expect this list to be modified and expanded during the Work Group's April 7 deliberations.

3. ***Areas of Emerging/Apparent Agreement:*** As noted above, the goal of the Work Group is to confirm and prioritize among the longer list of concerns and options/solutions. As areas of stakeholder agreement become apparent, we will capture the comments in the column of emerging/apparent agreement.

4. ***Implementation Considerations:*** This column is intended to capture implementation considerations concerning the options/solutions proposed.

5. ***Information Needs:*** This column captures information that needs to be obtained in order to assist the Work Group's deliberations on concerns and options/solutions.

6. ***Timing to Address:*** Options for timing are: (a) as part of urban water use measurement framework; (b) as part of legislation; and, (c) as part of regulatory drafting process.

One other point to note: During the March 28, 2003 Drafting Team teleconference, Drafting Team members discussed the value of temporarily setting aside Work Group deliberations on the issues of service metering and volumetric pricing (captured as Concerns #1 and #2) until the group considers questions related to challenges facing the state/federal government's system of collecting water extraction, delivery, and return flow data (Concern #3), and consideration and implementation of newer measurement approaches and technologies (Concern #4). Drafting Team members broadly supported this approach, particularly given the Legislature's current deliberations on AB 306.

The Work Group will review and begin revising the concepts incorporated in this draft "strawman" document at the April 7, 2003 full Work Group meeting.

Concerns Expressed Associated with Current Measurement Approach		Possible Options/Solutions (incentive-based, regulatory, legislative, institutional, etc.)	Emerging/ Apparent Agreement	Implementa-tion Considerations	Info Needs	Timing to Address
1. State's legal framework creates inequitable burdens among water users, impinging on water agencies' ability to implement state/federal water management objectives related to water use efficiency	a) Metered water users who pay volumetrically may contribute disproportionately more to statewide water management than un-metered users b) In areas where flat rates prevail, customers who conserve can end up subsidizing the water use of those who waste **c)** Additionally, different types of users (e.g., residential versus commercial versus industrial, or agricultural versus urban) want to be sure that they are being treated equitably relative to one another					

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2. State's lack of comprehensive policy requiring metering and volumetric pricing impinges on water agencies' ability to implement state/federal water management objectives related to water use efficiency.	a) Restricts ability to measure water use b) Restricts ability to implement equitable pricing c) Restricts ability to identify potential waste **d)** Restricts ability to implement conservation pricing					

Concerns Expressed Associated with Current Measurement Approach		Possible Options/Solutions (incentive-based, regulatory, legislative, institutional, etc.)	Emerging/ Apparent Agreement	Implementa-tion Considerations	Info Needs	Timing to Address
3. If the State/Federal government's system of collecting water extraction, delivery and return flow data were improved, then state/federal agencies could improve their ability to meet their water management objectives related to planning, allocation, transfers and water use efficiency. Specifically, better information on water extraction (e.g., groundwater and surface water diversions) could be instrumental in helping the state prepare a more complete and defensible update to the state water plan. Similarly, improved information on water diversions could help SWRCB better determine the level of water allocation for an individual watershed.	**a)** Data gaps exist because existing measurement technologies are 1) insufficient or 2) not being used	**a) Not measured** · Incentivize adoption of devices and methods by: o Reducing device / method adoption / operation costs by: ▪ providing information about tech. aspects and benefits of devices / methods and successes of other users ▪ subsidizing adoption and / or operation costs (where not locally cost effective) · Legislate the requirement of measurement devices · Establishing evidentiary standard for proof of quantity of water use, conservation, or impact for proceedings / processes before: o SWRCB o courts of law o grant-making agencies (DWR, USBR, SWRCB, other CALFED agencies) · Define or create presumptions as to whether water not measured and reported to within specified degrees of accuracy (or not using devices / methods of certain types) is "waste" · Other?				
	b) Data gaps exist because, while measurement devices and methods exist, measurement data are not being collected	**b) Not collected** · Provide public staffing to read / report data · Provide quasi-public staff to read and report data (i.e., certified firms / individuals; or specified government contractors) · Provide subsidy for private reading / reporting, where not locally cost effective · Legislate requirement of measurement data collection · Other?				
	c) Data gaps exist because measurement data are being collected in an ineffective manner. There is a lack of, for example: · standardization among water agencies regarding what data to collect and in what form—e.g., variations in customer classification, differences in data collection interval · reliable calibration · other quality assurance issues	**c) Ineffective collection/lack of standardization** · Establish a water-body-to-data-end-user electronic data handling system: o Decide on uniform data fields for use by all agencies (cf., federal electronic grant-making effort) o Identify software needs · Other?				
	d) Data gaps exist because there is no effective system for getting data collected by water agencies to state / federal water managers	**d) Poor distribution of information** · Legislate that distribution of information is required · Tie incentives to distribution of information · Other?				
	e) Implementation gaps arising from current use of data / information by state / federal water managers	e) **Current state/federal agency use of information** · Other?				

Concerns Expressed Associated with Current Measurement Approach		Possible Options/Solutions (incentive-based, regulatory, legislative, institutional, etc.)	Areas of Emerging/ Apparent Agreement	Implementation Considerations	Info Needs	Timing to Address
4. Emergence of newer technologies, devices and approaches (such as sub-metering, landscape metering and aerial surveys, and wastewater or recycled water metering) may face implementation barriers due to lack of information, cost concerns, and/or political constraints. This undermines water agencies' implementation of actions that support state/federal water management objectives related to planning, allocation, transfers and water use efficiency.	**a)** Water purveyors are not aware of new measurement methods (i.e., in addition to service metering), or the benefits of new measurement methods are unknown or have not been demonstrated in a valid or reliable manner	**a) Not aware** · Provide information about technical aspects, costs and benefits of devices / methods and successes of other users · Conduct research to determine benefits of new measurement methods				
	b) Water purveyors are aware of new measurement methods but have not adopted them for reasons of cost effectiveness	**b) Assumed Cost-Ineffectiveness** · Shift assumptions regarding cost-effectiveness by creating a set of successful demonstration projects distributed across key regions				
	c) Water purveyors are aware of new measurement methods that are cost effective at the local level but are not considering measures that are cost effective at the state level	**c) Purveyors not considering approaches to cost-effectiveness at state level** · Establish a system of designations for "measured" and "unmeasured" regions, where regions implementing state-level-cost-effective approaches are afforded access on a preferential basis to federal or state-level grants, loans, planning resources, water, or water conveyance facilities, or subjected to more stringent evidentiary standards in governmental decision making processes.				